

APRIL/MAY 2023

**CBT31 — MICROBIOLOGY**

Time : Three hours

Maximum : 75 marks

**SECTION A — (10 × 2 = 20 marks)**

Answer ALL questions.



1. Define spontaneous generation.
2. Explain any two characteristics of Kingdom Protista.
3. Recall the use of light microscope.
4. Outline the morphology of bacteria.
5. What is axenic culture?
6. Compare solid and liquid media.
7. Show the optimum pH required for the growth of bacteria.
8. Summarise the physical agents required for sterilization.
9. What is food spoilage?
10. Relate the role of microbes as source of protein.



SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Choose the scientist Antony Van Leeuwenhoek and write about his discoveries and inventions in the field of microbiology.

Or

- (b) Simplify the structure of Archaeobacteria.

12. (a) Make use of fungi to explain its structure and function.

Or

- (b) Examine the life cycle pattern of plasmodium.

13. (a) What is enrichment medium? Identify its use in microbiology laboratory.

Or

- (b) Analyse the steps employed in pour plate method.

14. (a) How radiation is utilised in sterilization process?

Or

- (b) Examine the process of filtration and its role in sterilization.

15. (a) Identify the role of microbes in food spoilage.

Or

- (b) Distinguish cholera and typhoid.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Compare prokaryotic and Eukaryotic micro organism.

17. Appraise the ultra structure of bacteria with a neat labelled diagram.

18. Explain the nutritional types of microorganism.

19. Compile the techniques employed in antimicrobial chemotherapy evolution.

20. Discuss the cause, pathogenesis, diagnosis of hepatitis.